

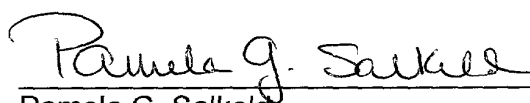
Applicant's Reference: **SY01105K1QKQK**

Title of Invention: **NOVEL AVIAN HERPES VIRUS AND USES THEREOF**

Applicant: **Mark D. Cochran et al.**

Sequence Listing Statement

The undersigned agent for applicant hereby declares that the information recorded on the diskette is identical in content to the information in the written Sequence Listing.



Pamela G. Salkeld
Registration No. 38,607

Date: June 14, 2001

SEQUENCE LISTING

<110> Cochran, Mark D
Cook, Stephanie M
Wild, Martha A

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| tgc atc aaa att gca cag caa gtt ggt gta gag ctc aac ctg tac cta Cys Ile Lys Ile Ala Gln Gln Val Gly Val Glu Leu Asn Leu Tyr Leu 210 215 220 225 | 1868 |
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 His Glu Val Thr Asp Gly Leu Ser Gln Leu Ala Val Ala Val Gly Lys
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Met His Arg Pro

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| Lys | Lys | Ala | Pro | Pro | Glu | Asp | Ser | Glu | Asp | Asp | Met | Gln | Ala | Glu | Ala | | |
| | | | | 345 | | | | | 350 | | | | | 355 | | | |
| tct | gga | gaa | aat | cct | gcc | gcc | ctc | ccc | gaa | gac | gac | gaa | gtc | ccc | gag | 1700 | |
| Ser | Gly | Glu | Asn | Pro | Ala | Ala | Leu | Pro | Glu | Asp | Asp | Glu | Val | Pro | Glu | | |
| | | | 360 | | | | | 365 | | | | | 370 | | | | |
| gac | acc | gag | cac | gat | gat | cca | aac | tcg | gat | cct | gac | tat | tac | aat | gac | 1748 | |
| Asp | Thr | Glu | His | Asp | Asp | Pro | Asn | Ser | Asp | Pro | Asp | Tyr | Tyr | Asn | Asp | | |
| | | 375 | | | | | 380 | | | | | 385 | | | | | |
| atg | ccc | gcc | gtg | atc | ccg | gtg | gag | gag | act | act | aaa | agt | tct | aat | gcc | 1796 | |
| Met | Pro | Ala | Val | Ile | Pro | Val | Glu | Glu | Thr | Thr | Lys | Ser | Ser | Asn | Ala | | |
| | 390 | | | | | 395 | | | | | 400 | | | | | | |
| gtc | tcc | atg | ccc | ata | ttc | gcg | gcg | ttc | gta | gcc | tgc | gcg | gtc | gcg | ctc | 1844 | |
| Val | Ser | Met | Pro | Ile | Phe | Ala | Ala | Phe | Val | Ala | Cys | Ala | Val | Ala | Leu | | |
| 405 | | | | | 410 | | | | | 415 | | | | | 420 | | |
| gtg | ggg | cta | ctg | gtt | tgg | agc | atc | gta | aaa | tgc | gcg | cgt | agc | taa | | 1889 | |
| Val | Gly | Leu | Leu | Val | Trp | Ser | Ile | Val | Lys | Cys | Ala | Arg | Ser | | | | |
| | | | | 425 | | | | 430 | | | | | | 435 | | | |
| tcgagcctag | aataggtggt | ttcttctctac | atgccacgcc | tcacgctcat | aatataaatc | | | | | | | | | | | 1949 | |
| acatggaata | gcataccaat | gcctattcat | tgggacgttc | gaaaagc | atg | gca | tcg | | | | | | | | | 2005 | |
| | | | | Met | Ala | Ser | | | | | | | | | | | |
| cta | ctt | gga | act | ctg | gct | ctc | ctt | gcc | gcg | acg | ctc | gca | ccc | ttc | ggc | 2053 | |
| Leu | Leu | Gly | Thr | Leu | Ala | Leu | Leu | Ala | Ala | Thr | Leu | Ala | Pro | Phe | Gly | | |
| | 440 | | | | | 445 | | | | | 450 | | | | | | |
| gcg | atg | gga | atc | gtg | atc | act | gga | aat | cac | gtc | tcc | gcc | agg | att | gac | 2101 | |
| Ala | Met | Gly | Ile | Val | Ile | Thr | Gly | Asn | His | Val | Ser | Ala | Arg | Ile | Asp | | |
| 455 | | | | | 460 | | | | | 465 | | | | | 470 | | |
| gac | gat | cac | atc | gtg | atc | gtc | gcg | cct | cgc | ccc | gaa | gct | aca | att | caa | 2149 | |
| Asp | Asp | His | Ile | Val | Ile | Val | Ala | Pro | Arg | Pro | Glu | Ala | Thr | Ile | Gln | | |
| | | | | 475 | | | | | 480 | | | | | 485 | | | |
| ctg | cag | cta | ttt | ttc | atg | cct | ggc | cag | aga | ccc | cac | aaa | ccc | tac | tca | 2197 | |
| Leu | Gln | Leu | Phe | Phe | Met | Pro | Gly | Gln | Arg | Pro | His | Lys | Pro | Tyr | Ser | | |
| | | | 490 | | | | | 495 | | | | | 500 | | | | |
| gga | acc | gtc | cgc | gtc | gcg | ttt | cgg | tct | gat | ata | aca | aac | cag | tgc | tac | 2245 | |
| Gly | Thr | Val | Arg | Val | Ala | Phe | Arg | Ser | Asp | Ile | Thr | Asn | Gln | Cys | Tyr | | |
| | | 505 | | | | | 510 | | | | | 515 | | | | | |
| cag | gaa | ctt | agc | gag | gag | cgc | ttt | gaa | aat | tgc | act | cat | cga | tcg | tct | 2293 | |
| Gln | Glu | Leu | Ser | Glu | Glu | Phe | Glu | Asn | Cys | Thr | His | Arg | Ser | Ser | | | |
| | 520 | | | | | 525 | | | | 530 | | | | | | | |
| tct | gtt | ttt | gtc | ggc | tgt | aaa | gtg | acc | gag | tac | acg | ttc | tcc | gcc | tcg | 2341 | |

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| | | | | | | | | | | | | | | | | |
|------------|------------|------------|------------|------------|------------|---------|---------|-----------|------------|------------|---------|---------|---------|---------|---------|------|
| Ser 535 | Val | Phe | Val | Gly | Cys 540 | Lys | Val | Thr | Glu | Tyr 545 | Thr | Phe | Ser | Ala | Ser 550 | |
| aac | aga | cta | acc | gga | cct | cca | cac | ccg | ttt | aag | ctc | act | ata | cga | aat | 2389 |
| Asn | Arg | Leu | Thr | Gly 555 | Pro | Pro | His | Pro | Phe 560 | Lys | Leu | Thr | Ile | Arg 565 | Asn | |
| cct | cgt | ccg | aac | gac | agc | ggg | atg | ttc | tac | gta | att | gtt | cgg | cta | gac | 2437 |
| Pro | Arg | Pro | Asn 570 | Asp | Ser | Gly | Met | Phe 575 | Tyr | Val | Ile | Val | Arg 580 | Leu | Asp | |
| gac | acc | aaa | gaa | ccc | att | gac | gtc | ttc | gcg | atc | caa | cta | tcg | gtg | tat | 2485 |
| Asp | Thr | Lys 585 | Glu | Pro | Ile | Asp | Val 590 | Phe | Ala | Ile | Gln | Leu 595 | Ser | Val | Tyr | |
| caa | ttc | gcg | aac | acc | gcc | gcg | act | cgc | gga | ctc | tat | tcc | aag | gct | tcg | 2533 |
| Gln | Phe 600 | Ala | Asn | Thr | Ala | Ala 605 | Thr | Arg | Gly | Leu | Tyr 610 | Ser | Lys | Ala | Ser | |
| tgt | cgc | acc | ttc | gga | tta | cct | acc | gtc | caa | ctt | gag | gcc | tat | ctc | agg | 2581 |
| Cys 615 | Arg | Thr | Phe | Gly | Leu 620 | Pro | Thr | Val | Gln | Leu 625 | Glu | Ala | Tyr | Leu | Arg 630 | |
| acc | gag | gaa | agt | tgg | cgc | aac | tgg | caa | gcg | tac | gtt | gcc | acg | gag | gcc | 2629 |
| Thr | Glu | Glu | Ser | Trp 635 | Arg | Asn | Trp | Gln | Ala 640 | Tyr | Val | Ala | Thr | Glu 645 | Ala | |
| acg | acg | acc | agc | gcc | gag | gcg | aca | acc | ccg | acg | ccc | gtc | act | gca | acc | 2677 |
| Thr | Thr | Thr | Ser 650 | Ala | Glu | Ala | Thr | Thr 655 | Pro | Thr | Pro | Val | Thr 660 | Ala | Thr | |
| agc | gcc | tcc | gaa | ctt | gaa | gcg | gaa | cac | ttt | acc | ttt | ccc | tgg | cta | gaa | 2725 |
| Ser | Ala | Ser 665 | Glu | Leu | Glu | Ala | Glu 670 | His | Phe | Thr | Phe | Pro 675 | Trp | Leu | Glu | |
| aat | ggc | gtg | gat | cat | tac | gaa | ccg | aca | ccc | gca | aac | gaa | aat | tca | aac | 2773 |
| Asn | Gly 680 | Val | Asp | His | Tyr | Glu 685 | Pro | Thr | Pro | Ala 690 | Asn | Glu | Asn | Ser | Asn | |
| gtt | act | gtc | cgt | ctc | ggg | aca | atg | agc | cct | acg | cta | att | ggg | gta | acc | 2821 |
| Val | Thr | Val | Arg | Leu | Gly 700 | Thr | Met | Ser | Pro | Thr 705 | Leu | Ile | Gly | Val 710 | Thr | |
| gtg | gct | gcc | gtc | gtg | agc | gca | acg | atc | ggc | ctc | gtc | att | gta | att | tcc | 2869 |
| Val | Ala | Ala | Val | Val 715 | Ser | Ala | Thr | Ile | Gly 720 | Leu | Val | Ile | Val | Ile 725 | Ser | |
| atc | gtc | acc | aga | aac | atg | tgc | acc | ccg | cac | cga | aaa | tta | gac | acg | gtc | 2917 |
| Ile | Val | Thr | Arg 730 | Asn | Met | Cys | Thr 735 | Pro | His | Arg | Lys | Leu | Asp 740 | Thr | Val | |
| tcg | caa | gac | gac | gaa | gaa | cgt | tcc | caa | act | aga | agg | gaa | tcg | cga | aaa | 2965 |
| Ser | Gln | Asp 745 | Asp | Glu | Glu | Arg | Ser 750 | Gln | Thr | Arg | Arg | Glu 755 | Ser | Arg | Lys | |
| ttt | gga | ccc | atg | gtt | gcg | tgc | gaa | ata | aac | aag | ggg | gct | gac | cag | gat | 3013 |
| Phe | Gly 760 | Pro | Met | Val | Ala | Cys 765 | Glu | Ile | Asn | Lys | Gly 770 | Ala | Asp | Gln | Asp | |
| agt | gaa | ctt | gtg | gaa | ctg | gtt | gcg | att | gtt | aac | ccg | tct | gcg | cta | agc | 3061 |
| Ser | Glu | Leu | Val | Glu | Leu 780 | Val | Ala | Ile | Val | Asn 785 | Pro | Ser | Ala | Leu | Ser 790 | |
| tcg | ccc | gac | tca | ata | aaa | atg | tga | ttagtctga | atgtggctct | ccaatcattt | | | | | | 3115 |
| Ser | Pro | Asp | Ser | Ile 795 | Lys | Met | | | | | | | | | | |
| cgattctcta | atctcccaat | cctctcaaaa | ggggcagtat | cggacacgga | ctgggagggg | | | | | | | | | | | 3175 |

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 attaacgtac 3605

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 <212> PRT
 <213> Infectious Laryngotracheitis Virus

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 Gly Ala Ala Val Phe Thr Leu Phe Trp Thr Cys Val Arg Ile Met Arg
 35 40 45
 Glu His Ile Cys Phe Val Arg Asn Ala Met Asp Arg His Leu Phe Leu
 50 55 60
 Arg Asn Ala Phe Trp Thr Ile Val Leu Leu Ser Ser Phe Ala Ser Gln
 65 70 75 80
 Ser Thr Ala Ala Val Thr Tyr Asp Tyr Ile Leu Gly Arg Arg Ala Leu
 85 90 95
 Asp Ala Leu Thr Ile Pro Ala Val Gly Pro Tyr Asn Arg Tyr Leu Thr
 100 105 110
 Arg Val Ser Arg Gly Cys Asp Val Val Glu Leu Asn Pro Ile Ser Asn
 115 120 125
 Val Asp Asp Met Ile Ser Ala Ala Lys Glu Lys Glu Lys Gly Gly Pro
 130 135 140
 Phe Glu Ala Ser Val Val Trp Phe Tyr Val Ile Lys Gly Asp Asp Gly
 145 150 155 160
 Glu Asp Lys Tyr Cys Pro Ile Tyr Arg Lys Glu Tyr Arg Glu Cys Gly
 165 170 175
 Asp Val Gln Leu Leu Ser Glu Cys Ala Val Gln Ser Ala Gln Met Trp
 180 185 190
 Ala Val Asp Tyr Val Pro Ser Thr Leu Val Ser Arg Asn Gly Ala Gly
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 Leu Thr Ile Phe Ser Pro Thr Ala Ala Leu Ser Gly Gln Tyr Leu Leu
 210 215 220
 Thr Leu Lys Ile Gly Arg Phe Ala Gln Thr Ala Leu Val Thr Leu Glu
 225 230 235 240
 Val Asn Asp Arg Cys Leu Lys Ile Gly Ser Gln Leu Asn Phe Leu Pro

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| 130 | 135 | 140 |
|--|-----|-----|
| Arg Leu Asp Asp Thr Lys Glu Pro Ile Asp Val Phe Ala Ile Gln Leu 145 150 155 160 | | |
| Ser Val Tyr Gln Phe Ala Asn Thr Ala Ala Thr Arg Gly Leu Tyr Ser 165 170 175 | | |
| Lys Ala Ser Cys Arg Thr Phe Gly Leu Pro Thr Val Gln Leu Glu Ala 180 185 190 | | |
| Tyr Leu Arg Thr Glu Glu Ser Trp Arg Asn Trp Gln Ala Tyr Val Ala 195 200 205 | | |
| Thr Glu Ala Thr Thr Thr Ser Ala Glu Ala Thr Thr Pro Thr Pro Val 210 215 220 | | |
| Thr Ala Thr Ser Ala Ser Glu Leu Glu Ala Glu His Phe Thr Phe Pro 225 230 235 240 | | |
| Trp Leu Glu Asn Gly Val Asp His Tyr Glu Pro Thr Pro Ala Asn Glu 245 250 255 | | |
| Asn Ser Asn Val Thr Val Arg Leu Gly Thr Met Ser Pro Thr Leu Ile 260 265 270 | | |
| Gly Val Thr Val Ala Ala Val Val Ser Ala Thr Ile Gly Leu Val Ile 275 280 285 | | |
| Val Ile Ser Ile Val Thr Arg Asn Met Cys Thr Pro His Arg Lys Leu 290 295 300 | | |
| Asp Thr Val Ser Gln Asp Asp Glu Glu Arg Ser Gln Thr Arg Arg Glu 305 310 315 320 | | |
| Ser Arg Lys Phe Gly Pro Met Val Ala Cys Glu Ile Asn Lys Gly Ala 325 330 335 | | |
| Asp Gln Asp Ser Glu Leu Val Glu Leu Val Ala Ile Val Asn Pro Ser 340 345 350 | | |
| Ala Leu Ser Ser Pro Asp Ser Ile Lys Met 355 360 | | |

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